

City of Tempe

# SAFETY NET



## Asbestos — Renovation or Demolition What you need to know!

### Special points of interest:

- Could you be held responsible for improperly handling or disposing asbestos?
- Permit verse non-permit confined spaces, what's the deal? Find out on Page 3.

"Asbestos" is a term used to describe six naturally occurring incombustible minerals. Three of the most common types are chrysotile, amosite, and crocidolite. Asbestos minerals formed millions of years ago when heat, pressure, or chemical activity changed the physical and chemical characteristics of pre-existing rock. Unlike other minerals, which consist of tightly bound crystals, asbestos minerals are characterized by the presence of densely packed bundles of fibers.

Asbestos was a popular component in commercial products from the early 1900s to the 1970s. Asbestos is durable, fire retardant, resists corrosion, and insulates very well. Asbestos products

use in America was greatest from the 1940's until the late 1970's when the health hazards associated with asbestos exposure became widely recognized. By this time asbestos had become an integral component of approximately 3,600 commercial products. During World War II, enormous quantities of asbestos were used in shipbuilding and other industries. Following the war and until the late 1970s, asbestos was widely used in buildings for fireproofing, thermal and acoustical insulation, condensation control, and decoration. It has been estimated that approximately 30 million tons of asbestos have been used in the construction and manufacturing industries since the early 1900s.

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## Safety Survey

### The Results are in...

In an effort to provide the most effective safety and health program an on-line survey was developed and sent out to employees. The survey focused on two primary topics; what employees want and what is the best use of our resources.

A primary focus for EHS was to find out how employees feel about on-line training. Other issues addressed in the survey included; information availability, web-sites and training materials.

Only about 3% of employees completed the survey. While the survey was not "scientific" it was a valuable tool in collecting basic information in providing a general direction. Employees who completed the survey remained anonymous.

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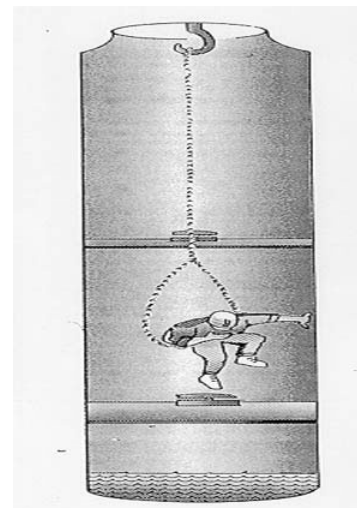
# Safety Summary

## Confined Space Deaths

On July 10, 1986, a three man crew was attempting to shut down a 24-inch water main when the accident occurred. One worker entered a 10' deep valve pit through a 22" manhole via a built in steel ladder (rungs in wall). Within a few minutes the employee called for help, two other workers went to assist. One was overcome, prompting the third employee to exit the space and call for help. The two workers in the pit died at a local hospital.

The cause of death was determined to be asphyxiation due to oxygen deficiency. Oxygen levels in the pit were monitored by the rescue team after ventilation of the space. Oxygen was detected at 18%; 19.5% is the OSHA evacuation point.

There were no signs of a potential oxygen deficient atmosphere to workers such as; open sewers, chemicals or standing water the pit was located in a busy intersection and had not been opened in three years.



## Tire Blast Kills Worker

A large truck tire ruptured while a worker was replacing it. The force of the blast knocked three layers of clothing off the worker. The tire was a 3' diameter tire on a tractor trailer. The sidewall of the tire suddenly ruptured sounding like a grenade.

The worker was conscious for a moment or two, but he could not speak. He just looked at his co-workers and then lost consciousness. A co-worker began CPR but noticed during chest compressions that the employee's ribs felt like they had been crushed. The victim was pronounced dead at a local hospital.



A "zipper" explosion is one where the sidewall explodes resulting in the steel belt looking like a zipper.

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An **accident** is something going wrong **unexpectedly**. Technically, "accidents" do not include incidents where someone is at fault, i.e., negligent: where someone fails to take reasonable precautions in the circumstances. If the results of such negligence were foreseeable, they were certainly not "accidental" at that level, and the negligent person can be held liable for damages and personal injuries. In an "accident", there is simply nobody to blame, because the event was **unforeseeable** or very unlikely. For example, a pharmacist negligently mixes the wrong chemicals and mislabels them for sale; a person ingesting the chemicals according to the label instructions has been "accidentally" poisoned, but the pharmacist's mistake was not so accidental as much as it was negligent.

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**VISIT OUR WEB**

<http://www1.tempe.gov/hpcc>

The City of Tempe places a high regard on your safety. EHS is here to assist in any way possible when it comes to employees health and safety. Please contact EHS for any health and safety concerns.

## Permit and Non-Permit Confined Space's

One of the most confusing issues of the confined space program is understanding the requirements that exist between a Permit Confined Space and a Non-Permit Confined Space.

First, we must identify what a **Confined Space** is:

- Has limited or restricted means for entry or exit; **AND**
- Is large enough and so configured that an employee can bodily enter and perform assigned work; **AND**
- Is not designed for continuous employee occupancy.

It is important to note that OSHA requires that **all** three conditions are present to meet its regulatory definition of a confined space. Spaces that do not meet all three of these conditions are not subject to OSHA's or the City's confined space entry program.

Please remember that there are spaces, which may not meet all three conditions, but present a significant health or safety hazard all the same. These spaces are still considered hazardous and extreme caution should be exercised when working in or around these spaces.

### Permit-Required Confined Space

is a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere; **OR**
- Contains a material with the potential for engulfment of an entrant; **OR**

- Has an internal configuration so that an entrant would be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; **OR**
- Contains any other recognized serious safety or health hazard (e.g., mechanical, heat, humidity, noise, electricity, moving parts of machinery, biological, fall hazards, etc.)

### Non Permit Confined Space

This is a confined space that poses no actual or potential atmospheric hazards **AND** all the hazards (mechanical, physical hazards and any other recognized serious safety or health hazard) are eliminated without having to enter the space.

Only the City of Tempe, Program Administrator can declare a confined space a non-permit required space.

### Non Permit Confined Space Requirements

As defined in the City of Tempe written program the entry employees must be trained in confined space operation and continuously monitor the atmosphere. While no permit is required during the re-classification process the Program Administrator will **determine** if a buddy system is needed for safe entry.

For addition information please contact Raymond Hagen or Scott Mosley.

## WEB SITE INFO

<http://www1.tempe.gov/hpcc/eh&s/cspmain.htm>



## NOTICE

All manholes and vaults are considered to be PRCS, until assessed by EHS



## Asbestos — Renovation or Demolition

### Continued



Some floor tiles may contain asbestos.

*“The asbestos inspection report be available on site throughout the entire demolition project.”*



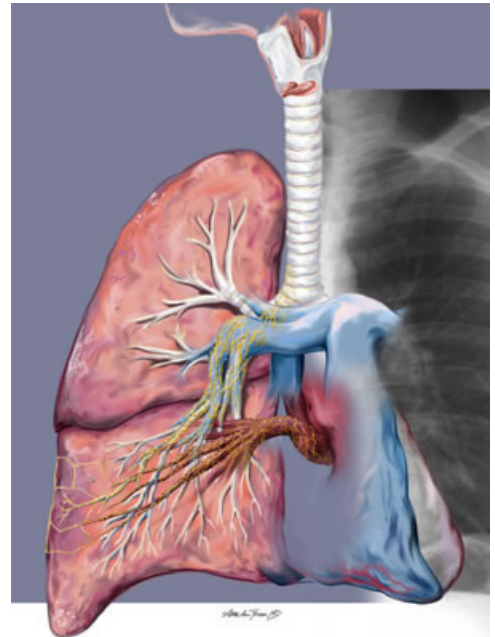
Some insulation may be asbestos containing material

Asbestos fibers can cause serious health problems. If asbestos fibers are inhaled, these tiny microscopic fibers can cause normal functions of the lungs to be disturbed. Exposure increases the risk of developing lung cancer, mesothelioma, or asbestosis, which is a scarring of the lungs that leads to breathing problems. It could take anywhere from 15 to 30 years after the first exposure for symptoms to occur. Medical investigations have shown that inhalation is the principal route of entry that leads to asbestos-related diseases. There is no known safe exposure level to asbestos. The greater the exposure, the greater the risk of developing an asbestos-related disease.

So what does this all mean? Asbestos is regulated by EPA, OSHA, ADEQ and Maricopa County. Before you renovate or demolish a building that is owned by the City of Tempe you need to perform some basic steps before you begin. Here is the Maricopa County requirements that must be followed:

### General Guidelines for Demolition Projects

1. Determine if the building has been inspected by an AHERA-certified asbestos building inspector during the past year. ***If it has been***, obtain a copy of the asbestos report to determine if asbestos is present. ***If it has not been inspected***, have the building inspected by an AHERA-certified asbestos inspector and verify his or her certification. Obtain a copy of the inspection report and determine if asbestos is present. It is recommended



that the asbestos inspection report be available on site throughout the entire demolition project.

2. Determine the amount of friable asbestos containing material. If the amount is **160 square feet, 260 linear feet, 35 cubic feet or more**, it is regulated asbestos and must be removed by a certified contractor.
3. Strongly consider hiring a third party consultant who has asbestos contractor/supervisor training to oversee the project. If you do hire a consultant, pay attention to the recommendations and guidance.
4. ***Prepare and submit the [NESHAP 10-Day notification form](#). This notification must be postmarked or hand-delivered to Maricopa County Air Quality Department, NESHAP Coordinator, at least 10 days prior to the commencement of demolition activities.***

***Continued on Page 7***



# Hazardous Waste - Update

## City of Tempe Facilities Downgraded

Through some very diligent work by several work groups the Water Utilities Department, South Water Treatment Plant and Johnny G. Martinez Water Treatment Plant have had their hazardous waste generation status downgraded to Small Quantity Hazardous Waste Generator's (SQG) from Large Quantity Generator's (LQG).

- LQG generate 1,000 kilograms per month or more of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste.
- LQGs may only accumulate waste on site for 90 days.
- LQGs do not have a limit on the amount of hazardous waste accumulated on site.
- There must always be at least one employee available to respond to an emergency.
- LQGs must have detailed, written contingency plans for handling emergencies.
- LQGs must submit a biennial hazardous waste report

Small Quantity Generators (SQG) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

- SQGs may accumulate hazardous waste on site for 180 days without a permit (or 270 days if shipping a distance greater than 200 miles).
- The quantity of hazardous on site waste must never exceed 6,000 kilograms.
- There must always be at least one employee available to respond to an emergency.
- SQGs are not required to have detailed, written contingency plans.



**GOT HAZARDOUS WASTE**

Call EHS

## Its Getting Hot!

While there is no specific OSHA regulation pertaining to working in hot environments, the General Duty Clause requires employers to provide the safest workplace possible. With our hot temperatures, this is accomplished through training and employee awareness. Please see page 8 for upcoming **Heat Stress** training. This training is especially important to any work groups or employee's that work outside.

### A Few Simple Reminders

- Drink plenty of water the day before.
- Wear loose fitting cotton clothing.
- Take frequent short breaks.
- Avoid caffeine/alcohol the day before.
- PPE increase heat stress on the body.



*Remember Heat stress can lead to Heat Stroke. Heat Stroke can be fatal and does require immediate medical attention. Learn the signs and symptoms of heat related illnesses.*

## Safety Survey *Continued*

As a result of the survey EHS has re-focused our efforts to ensure the safety and health needs of all City of Tempe employees are met. Existing programs such as web quiz will be utilized for on-line training, more flexible training hours will be offered, training specific to work groups, including the OSHA10-Hour, General Industry Health and Safety Program will be available upon request.



What type of training do you prefer? **82% Face to Face**  
**18% Web Based**

Are the training materials provided by EHS useful? **87% Yes**  
**13% No**

Have you visited the EHS website? **68% Yes**  
**32% No**

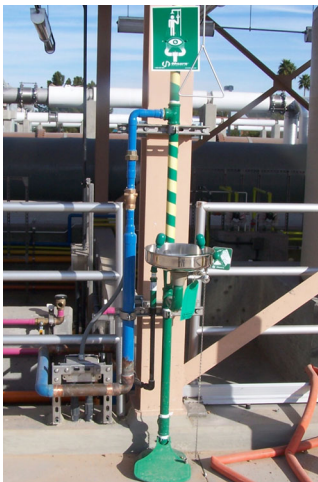
Was the website useful? **68% Yes**  
**32% No**

Have you read the EHS Newsletter? **69% Yes**  
**31% No**

Was the Newsletter useful? **69% Yes**  
**31% No**

Remember this is your program so input is not only welcomed but highly encouraged. Please contact any member of EHS for questions or suggestions.

## Eyewash-Shower Operations



If you have an emergency eyewash or shower in your work area how often does it have to be checked and what has to be checked? ANSI Standard Z358.1-2004 states that all showers and eyewashes must be activated once a week to inspect for proper operation and flush out supply lines. An annual inspection is also required to ensure compliance with the ANSI Standard which is recognized by OSHA. Some things to look for during activation:

- Is the water rusty when it first comes out? This type of problem needs to be repaired; typically it is a supply pipe problem. Eventually this could result in a restriction of flow or worse, rusty water in injured person's eye.
- Is there dirt or mineral build up on the heads? This condition can also restrict the water flow.
- Can the area be easily accessed? Nothing should be in the way that would impede and employee's quick access to the shower/eyewash.
- Is the shower outside? This is Arizona; the piping should be insulated and if possible relocated so a burn hazard is not present during initial activation. Water should be lukewarm, between 60 and 90 degrees F°.

**For assistance or if you have any questions, please contact EHS.**

# Asbestos — Renovation or Demolition

## Continued

5. Make sure that you obtain all required permits for your demolition project (i.e., dust control and/or earth moving permits).
6. **REMEMBER: You as the owner/operator are responsible** for all phases of asbestos removal, transportation and disposal.

## General Guidelines for Renovation Projects

1. Determine if the building has been inspected by an AHERA-certified asbestos building inspector during the past year. If it has been, obtain a copy of the asbestos report to determine if asbestos is present. If it has not been inspected, have the building inspected by an AHERA-certified asbestos inspector and verify his or her certification. Obtain a copy of the inspection report and determine if asbestos is present. It is recommended that the asbestos inspection report be available on site throughout the entire renovation project.
2. Determine the amount of friable asbestos containing material. If the amount is 160 square feet, 260 linear feet, 35 cubic feet or more, it is regulated asbestos and must be controlled or removed by a certified contractor.
3. Strongly consider hiring a third party consultant who has asbestos contractor/supervisor training to oversee the project. If you do hire a consultant, pay attention to the recommendations and guidance.
4. Prepare or review the proper [10-Day notification form](#) so that you are aware of the extent of the pro-

ject. If the renovation requires the removal of required asbestos as defined in (2) above, the notification form must be postmarked or hand-delivered to Maricopa County Air Quality Department, NESHAP Coordinator, at least ten [10] working days prior to the commencement of the renovation project.

5. Make sure that you obtain all required permits for your renovation project.

## Reference

Rule 370, Section 301.8 contains the Maricopa County Air Quality Department's asbestos regulations. This rule adopts the federal asbestos standard by reference and contains additional county regulations as well.

OSHA 29 CFR 1910.1001 has specific regulations that apply to employees that work with asbestos.

**If you need assistance or have questions concerning asbestos contact Scott Mosley.**



Most asbestos can not be detected without laboratory testing

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*“Remember you as the owner/operator are responsible for all phases of asbestos removal, transportation and disposal”*

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## In-House Training

### Health and Safety Training

If you have a specific need or want for health and safety training, please contact EHS.

#### April

8-Hour Hazardous Materials Update	April 5	0700-1630	SWTP, Env. Conference Room
Heat Stress	April 12	0800-1000	JGMWTP, Conference Room
Heat Stress	April 19	0800-1000	SWTP, Env. Conference Room
Heat Stress	April 26	1230-1430	JGMWTP, Conference Room

#### May

PPE—Hazcom	May 18	0700-1630	SWTP, Env. Conference Room
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#### June

Confined Space	June 1	0700-1200	TFD –TC
Hearing Conservation	June 29	0500-1100	TFD –TC (Every hour a class starts)

#### July

Awareness Training (Hazmat)	July 12	0700-1200	TFD –TC
Back Safety	July 27	0800-1000	SWTP, Env. Conference Room

### On-line training available

- Respiratory
- Hearing Conservation
- Confined Space Review
- 1st Responder Awareness

Contact EHS to receive accesses to an on-line class.

**If you are interested in a 10-Hour, General Industry Course for you or your work group please contact us. New employee need safety training? We can meet the OSHA requirements, contact us and we can schedule a one-on-one class their first week...**

## CITY OF TEMPE HEALTH AND SAFETY

*This is a Quarterly informational publication for City of Tempe employees. If you have comments or suggestions please contact the WUD, Environmental, Health and Safety Group.*

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